22361

24225

3 Hours / 70 Marks Seat No. | | | | | | | | |

Instructions : (1) All Questions are *compulsory.*

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data, if necessary.

Marks

1. Attempt any FIVE : **10**

(a) Define 'Degree of Polymerisation'.

(b) Enlist any four chemical properties of Jute fibres.

(c) Write any four uses of banana fibre.

(d) Write any four varieties of silk.

(e) Draw chemical structure of cellulose.

(f) Name any four amino acids present in wool fibres.

(g) State any four end uses of silk fibre.

2. Attempt any THREE : **12**

(a) Give classification of textile fibres on the basis of their origin.

(b) Compare between amorphous region & crystalline region of fibre.

(c) Explain morphological structure of cotton with neat sketch.

(d) Describe cultivation of cotton in India.

3. Attempt any THREE : **12**

(a) Describe the importance of mesomorphous region in fibre structure.

(b) Explain method to determine maturity of cotton fibre.

(c) Explain in detail Retting & extraction of jute fibre.

(d) Describe the effect of oxycellulose formation on fibre properties.

4. Attempt any THREE : **12**

(a) State the essential properties of textile fibres & explain importance of them.

(b) Explain method of detecting cotton fibre damage of a given cotton fibre sample.

(c) Explain method to ascertain chemical composition of banana fibre.

(d) Draw morphological structure of wool fibre & name all important parts.

(e) Explain method of grading the wool fibres based on different sources & different fineness.

5. Attempt any TWO : **12**

(a) 'Physical properties of fibre are the replication of arrangement of molecular chain in crystalline region'. Justify.

(b) State the reasons for selecting relevant chemicals along with their concentrations during the rating of Banana fibres.

(c) 'Wool fibre gives warmth'. Justify this statement with respect to its physical properties.

6. Attempt any TWO : **12**

(a) Explain various physical & chemical properties of flax fibre. Suggest various chemicals & dyes to be used for wet processing flax fabric.

(b) 'Degumming brings original lustre of silk'. Elaborate this statement by describing degumming process.

(c) Draw morphological structure of silk & comment on reason for lustrous appearance of silk filaments & fabrics.
